

## Human Platelet Lysate

PLTGold® and PLTMax® - Superior alternatives for advanced cell cultures

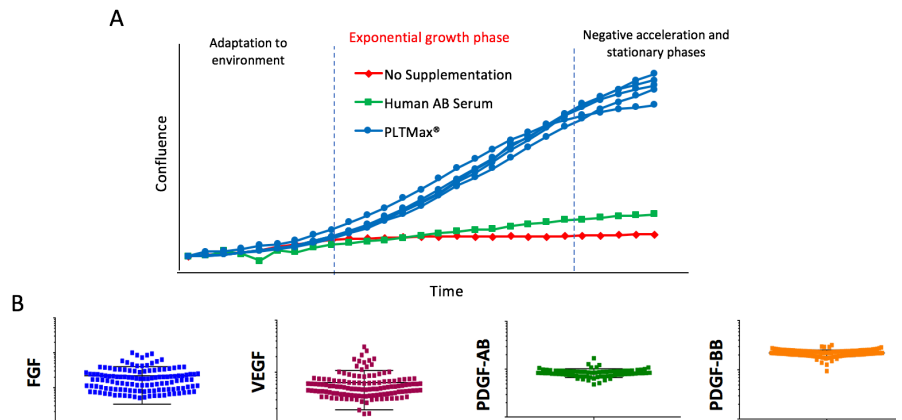


- Superior alternative to FBS for various cell types
- Faster cell growth kinetics and cell doubling times
- Lot-to-lot consistency
- cGMP-manufactured
- FDA Drug Master File

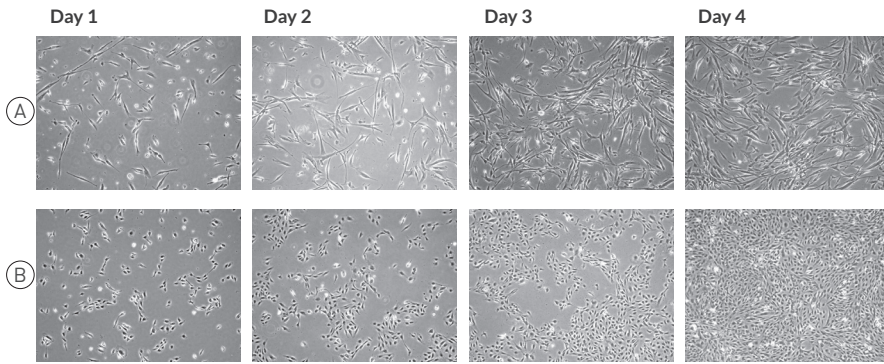
### Unparalleled cell growth

Platelets play an important role in tissue repair and wound healing within the body. The growth factors and cytokines naturally found in platelet-rich plasma are contained within extracted platelet lysate solution. Human platelet lysate is an effective, high-protein supplement for the expansion of a multitude of human cell types, including mesenchymal stem/stromal cells (MSCs), endothelial cells (ECs), T cells, and more. In both research and clinical applications, human platelet lysate is often used as an alternative to sera, such as fetal bovine serum (FBS) or human AB serum. **PLTGold® and PLTMax® Human Platelet Lysates** are revolutionary animal serum-free culture supplements with proven growth and cellular kinetic properties, and are routinely used for culture and expansion of both primary cells and stem cells. PLTGold® and PLTMax® promote excellent MSC growth and proliferation in a variety of media (most notably in combination with the defined NutriStem® MSC XF Medium) in addition to improved EC growth in various media (most notably in combination with the defined EndoGo® XF Medium).

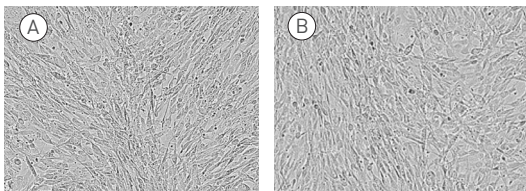
PLTGold® and PLTMax® are generated from large pools of platelets from multiple donors, which are sourced and manufactured to produce a consistent and reliable culture supplement with very low lot-to-lot variability. The consistency in the reagents is reflected not only in the observed cell kinetics assays, but also in many other parameters analyzed, including consistent levels of FGF, VEGF, PDGF-AB, and PDGF-BB, measured across numerous production lots. This advanced consistency allows for dependable cell culture growth kinetics and eliminates the need for lot matching or pre-screening.



**Figure 1.** A. Minimal batch variation is seen by real-time imaging of adipose-derived (AD-) MSCs across 5 production lots of PLTMax®. The growth of cells cultured in media from each lot of PLTMax® is plotted based on cell density measured at regular culture timepoints. The difference in media performance can be seen as early as 36 hours in culture. B. Consistency of growth factor levels is shown, measured in over 100 production lots of PLTMax®. PLTGold® demonstrates the same consistency in cell growth and growth factor levels across production lots (data now shown).



**Figure 2. MSC and HUVEC Growth.** A. hMSCs and B. HUVECs at their fourth passage post thaw cultured with 5% PLTGold® Human Platelet Lysate in their respective media (NutriStem® MSC XF Medium or EndoGo™ XF Medium) show healthy cell proliferation over 4 consecutive days in culture (5X).



**Figure 3.** Human AD-MSCs cultured in NutriStem® MSC XF Medium supplemented with either A. 5% PLTGold® or B. 5% PLTMax®. These images were taken on Day 4 of a standard cell kinetics assay, showing excellent cell proliferation and healthy morphology.

## Clinical translation

PLTMax®, the first human platelet lysate on the market, has been used in the clinic since 2008, including more than 30 Phase I, II, and III clinical trials worldwide in indications including neurology, nephrology, gastrointestinal disease, wound repair, and cardiology.

PLTGold® is the next generation of human platelet lysates, demonstrating the same exceptional performance in cell culture and expansion as PLTMax®. Through pioneering advancements in platelet processing, PLTGold® is a whole, non-fractionated, non-depleted product that does not clot and does not require heparin or any additional anticoagulants at any stage. PLTGold® contains all of the growth factors and proteins needed for maximized cell growth in a truly xeno-free solution that continues to out-perform other serum supplements.

A Drug Master File (DMF) is registered with the FDA for expedited use of these reagents as a manufacturing component in the generation of cells used for clinical therapies.

## Dedicated to quality

Platelets used meet eligibility criteria at the time of their collection as defined by AABB Standards for Blood Banks and Transfusion Services, as well as the FDA. Multiple donor units are pooled in large batch sizes and manufactured to produce a product that is rigorously evaluated and proven to be consistent lot-to-lot.

	Research Grade	Clinical Grade	GMP-Manufactured	Animal Serum-Free	Xeno-Free	Validated for MSC Culture	No Lot-Testing Required	Enhanced Growth Kinetics	Cost-Efficient
PLTGold®	●	●	●	●	●	●	●	●	●
PLTMax®	●	●	●	●		●	●	●	●
MSC-qualified FBS	●					●	●		
FBS	●								

## ORDERING INFORMATION

PRODUCT	CAT. #	SIZE
PLTGold® Human Platelet Lysate (Research-grade)	PLTGOLD27R	27 mL
	PLTGOLD100R	100 mL
	PLTGOLD500R	500 mL
PLTGold® Human Platelet Lysate (Clinical-grade)	PLTGOLD27GMP	27 mL
	PLTGOLD100GMP	100 mL
	PLTGOLD500GMP	500 mL
PLTGold® Human Platelet Lysate (Pathogen Inactivated)	PLTGOLD27GMP-PI	27 mL
	PLTGOLD100GMP-PI	100 mL
PLTMax® Human Platelet Lysate (Research-grade)	PLTMAX27R	27 mL
	PLTMAX100R	100 mL
	PLTMAX500R	500 mL
PLTMax® Human Platelet Lysate (Clinical-grade)	PLTMAX27GMP	27 mL
	PLTMAX100GMP	100 mL
	PLTMAX500GMP	500 mL
NutriStem® MSC XF Medium*	05-200-1A-KT	500 mL
EndoGo™ XF Medium*	05-400-1A-KT	500 mL
BIOTARGET™ Medium	05-080-1A	500 mL

\*Includes media and supplement. Bulk orders, custom sizes and volume fills available upon request.

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